Our Reference No.: 60.1543 US NP

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Abderrhamane Ounadjela Confirmation N°.: 4157

Serial N°. : 10/695,078 Group Art Unit: 2837

Filed : October 28, 2003 Examiner: Forrest M. PHILLIPS

For: BOREHOLE ACOUSTIC SOURCE

I hereby certify that this correspondence is being filed electronically on June 23,

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 /Brigid Laffey/
 June 23, 2008

 Brigid Laffey
 Date

## SUBSTANCE OF THE INTERVIEW OF MAY 29, 2008

U.S. Patent and Trademark Office Commissioner for Patents Alexandria, VA 22313-1450

Sir:

Applicant wishes to thank Examiner Phillips for his courtesy and cooperation during the interview conducted on May 29, 2008.

During the above-noted interview, Applicants' representative discussed the features of the present invention and the advantages thereof with respect to the prior art. Moreover, Applicants' representative discussed the references cited by the Examiner and pointed out the shortcomings thereof with respect to the features of the present invention.

In particular, in discussing the Chelminksi and Mallet references cited and applied by the Examiner, Applicants' representative noted that these references did not teach each and every feature of the instant independent claims.

Appl. No. 10/695.078

Docket No.: 60.1543 US NP

More specifically, Applicants' representative asserted that the two pads are connected to the sonde and the first motorized reaction mass uses the plurality of variable angle pushing rods to convert an axial motion into a radial motion so that the two pads generate elastic waves through the earth formation upon activation of the first motorized reaction mass as a result of impact of the pads against the wall. CHELMINSKI discloses a surface seismic energy generator 21 mounted on a truck T that uses an air gun 80 (Figures 2- 4, 7-8) which sends an explosive shock into surrounding water 160 (Figure 8) toward the reaction mass 118 which produces a downward shock 162 (Figure 8) generating compressional (P) waves 164 into the earth (see Figures 2-4 and 7-8, Col. 8, line 41 to Col. 9, line 51). MALLET discloses the sonde 10 suspended from the cable 12 in the borehole 14, wherein acoustic transducers have coils 38 & 39 used to generate a signal magnetic field with the element 36 biasing a transducer plate in and out (see Figure 4, Col. 3, lines 24-52 of MALLET), thus, in part, the movement creates the compression wave, as opposed to CHELMINSKI, which discloses using an air gun 80 which sends an explosive shock into surrounding water 160 toward the reaction mass 118 which produces a downward shock 162 generating compressional (P) waves 164 into the earth (see Figures 2-4 and 7-8. Col. 8, line 41 to Col. 9, line 51). In fact, the CHELMINSKI device operates in a completely different manner than the MALLET device and it is unclear how these devices could be combined or modified to end up with a device that operates in the intended manner of CHELMINSKI.

Appl. No. 10/695,078 PATENT

Docket No.: 60.1543 US NP

The Examiner responded generally positively to the above-noted arguments. Further, the Examiner indicated that he would consider these arguments when filed with

Should there be any questions or comments; the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully submitted, Bhavani Raghuraman

/James McAleenan/

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June 23, 2008 Schlumberger Doll-Research One Hampshire St Cambridge, MA 02139 Tel. 617.768.2421

the response.